

October 31, 2012

GPT/BNSF Custer Spur EIS
c/o CH2MHill
1100 112th Avenue Northeast, Suite 400
Bellevue, WA 98004

Dear U.S. Army Corps of Engineers, WA Department of Ecology and Whatcom County:

The proposed coal export terminal (GPT and Custer Spur project) at Cherry Point, WA deeply concerns me. My home is in Mount Vernon, WA on the coal train route. So the potential disastrous results of the entire proposal – from the impacts of strip mining coal in Montana and Wyoming to the impacts of increased coal consumption in Asia - are very personally felt by me for so many reasons and on many levels. I have attached to this letter and incorporate into my comments a document prepared by James Wells entitled, 101+ Reasons to be Concerned About Coal Export. The impacts (and definitions of each impact) listed in this document are serious and merit your study. The impacts outlined in it - from strip mining in the Powder River Basin (PBR) to exporting and burning this coal in Asia - are significant. They will affect me and my family, my neighbors and communities from the mines in the Powder River Basin to Asia. The impacts in the document are reasonably foreseeable (for just a few examples: additional trains transporting coal through communities along the rail line, over 950 annual transits of massive coal ships in the Salish Sea and burning 150 million tons of Powder River Basin coal in new coal fired power plants in Asia) based upon information in GPT's permit application and its Project Information Document. I respectfully request that you study in detail each and every impact listed in this 101+ Reasons document for purposes of preparing the EIS.

For all rail, transportation and rail-related air quality issues outlined in the document, please include in your study the cumulative impacts of 18 additional daily GPT trains through Skagit Valley and other rail line communities, plus the existing rail traffic and future rail traffic including the Tesoro oil tanker trains, planned Tethys trains and planned Amtrak Cascades expansion. For communities along the rail lines that would take coal to other planned coal export facilities in Washington and Oregon, please study cumulative impacts of the trains for GPT plus the trains that would travel to these ports. For marine impacts listed in the document, including all impacts on marine species, fisheries, vessels, etc., please include in your study the cumulative impacts of over 950 annual transits of massive bulk cargo ships to and from the GPT plus all existing and future marine vessel traffic, including for Canadian oil export projects.

An issue of utmost importance to me is the accelerating rate of climate change. I believe we must take responsibility to make decisions that will help reverse climate change if we are to survive. There is no longer any question among scientists that climate change is real and that greenhouse gases, including CO₂, are released from human activities. We are already seeing melting ice sheets and defrosting tundra at a faster rate than scientists anticipated. We are

experiencing the warmest years in recorded history and many places in the U.S. have experienced drought conditions. As I write this letter to you, a violent storm of unprecedented proportions has killed people and caused incalculable property damage in the northeastern United States. I am 85 years old and although I am in good health, I do not expect to see the worst results of man-made climate change. But I have 17 great grandchildren at present who *will* suffer the consequences if we fail to take measures to halt and reverse climate change. I want my great grandchildren's environment to be livable in the future.

In two Executive Orders in 2007 and 2009 (Executive Orders 07-02 and 09-05), Governor Gregoire proclaimed that the effects of climate change are already being felt in Washington (as seen in rising temperatures, melting mountain glaciers, declining Cascades snow pack and early peak spring river runoff and decreasing summer river flow) and that Washington is particularly vulnerable to the impacts of climate change that, without additional action to reduce carbon emissions, will harm the state's economy and environment. Coal fired power plants have been the primary contributor of CO2 emissions (the single most important of the greenhouse gasses linked to climate change) accounting for 81% of emissions in the U.S., for example.

The earth's climate is already out of balance, yet the GPT coal export project along with the 4 other planned coal export terminals would cumulatively send a significant amount -150 million tons - of coal to Asia to burn in coal fired power plants. Significantly, GPT alone would export 48 million metric tons of coal to Asia. Please conduct a comprehensive study of the CO2 emissions of the coal that would be exported from the proposed GPT, and cumulatively from the GPT and 4 other planned terminals in Washington and Oregon (150 million tons of coal), if the coal were burned in Asian coal-fired power plants. Please also study in detail the impacts these CO2 emissions would have on climate change and ocean acidification (an increasing problem in the Salish Sea and elsewhere). Please also include in the EIS a detailed study of the impacts that emissions of CO2 and other pollutants (for example, polycyclic aromatic hydrocarbons and diesel emissions) would have on air and marine and inland water quality resulting from a significant increase in the burning of bunker fuel by the coal ships for GPT as well as from the bulk cargo loading activities. Please also study the cumulative impacts of these emissions from vessels and activities for all 5 planned terminals and any other existing and future marine traffic that may contribute to such emissions. Please also study whether there would be mercury pollution from the coal fired power plants in Asia using exported Powder River Basin coal from GPT and the five terminals cumulatively and whether that pollution would travel across the ocean carried by wind currents to increase air, terrestrial and/or aquatic mercury levels here.

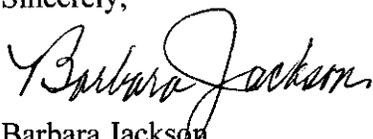
I have also attached and incorporate into these comments a summary of a King 5.com news story, Glenn Farley, What do heavy railroad cars have to do with earthquakes? (April 18, 2012). Please also conduct a study to answer that question for purposes of the GPT EIS. Gateway Pacific Terminal Inc.'s Project Information Document for the GPT (Feb. 28, 2011), Table 4-5, p. 4-53 shows that at full operation of the terminal there will be 18 additional daily train trips for the GPT that will travel into and from the terminal by way of the proposed expansion of the

Custer Spur. Also according to the Information document, each of these long-haul trains will be as much as 150 to 170 cars long (approximately a mile and a half long or longer) with each car containing 101.6 to 109 metric tons of bulk products including coal. GPT also says that the weight of each of the trains going to and from the GPT will range from 16,350 metric tons to 17,272 metric tons. The trains would travel on the BNSF railway through downtown Mount Vernon, the Skagit Valley and through over 100 other communities along the rail line to reach their destination at the GPT via a planned to be expanded Custer Spur. Please study whether vibrations from the heavy coal trains would trigger landslides and/or land subsidence in earthquake-prone and liquefaction zones including in Mount Vernon (which has both types of areas) and in other communities along the rail line. Please also study whether vibrations and noise (which is also a type of vibration) for the coal trains for GPT would damage buildings and other infrastructure such as roads and bridges. Please include cumulative impacts of vibrations from the GPT coal trains plus the existing and future rail traffic. For communities that would see coal trains not only for the GPT but also for other planned coal ports, please include in your study the potential cumulative impacts of train-caused vibrations on those communities.

Please study the cumulative impacts for the remaining topics in the 101 Reasons document as well. Please also analyze who will pay the costs to avoid the impacts listed in the document. In particular, who will pay the costs of increased CO2 emissions and resulting climate change, for example for loss of lives and property from sea level rise, loss of agriculture, impacts of huge hurricanes, extinction of species like salmon, and, most important to me, the ruination of my great grandchildren's future. I can think of no "mitigation" for these losses, can you?

My understanding of the laws that govern your actions (NEPA and SEPA) is that these laws bestow upon you an affirmative obligation as trustees to protect the natural resources – the air, the water, the land and, yes, even the atmosphere (both laws require you to consider climate impacts) - for the benefit of us all, including succeeding generations. These natural resources belong to the public – and that includes my great grandchildren. Turning these resources over to private interests would be a very grave matter. Your duties as trustees are based on a long tradition in Western democracy. This means you must not apply environmental standards as only a set of minimum requirements. I ask you - I beg you – to fully exercise your legally conferred duties, as the trustees of my great grandchildren's future, to seriously study in detail the broader implications and impacts of the GPT proposal, including the impacts on the earth's atmosphere.

Sincerely,



Barbara Jackson
2021 N. Laventure Rd. #406
Mount Vernon, WA 98273

101+ Reasons to Be Concerned About Coal Export

Health and Safety

Topic	Definition
Blocked Emergency Response	Emergency vehicles, or vehicles taking personnel to hospitals to respond to an emergency, will be delayed at train crossings, at a time when seconds count.
Coal dust from terminals blown to homes and other land locations	During wind events, coal dust will be blown from coal piles to locations up to 5 miles away, as has been observed at the Point Roberts terminal, and it will be inhaled.
Crossing Hazard	Over the operating lifetime of the terminal, some number of people will be killed by collisions with coal trains
Derailments	Coal trains may derail. Derailments can be caused by an accumulation of coal dust, and also by the accumulation of damage done to the rails by the huge coal trains.
Diesel PM Emissions	Diesel particulate matter (DPM) that is less than 2.5 microns in size, the most dangerous size, is emitted by the coal trains. These particles go deep into the lungs of people who breathe the fumes and cause serious health effects including cancer.
Fire Hazard at Refineries	Coal Dust is highly combustible. When it is blown from coal piles at the terminal on to nearby refineries, it could create a fire hazard or other hazardous conditions.
Inhalation of Coal Dust from Trains	Coal dust from the trains will be inhaled by people. Coal dust contains toxic metals, and has respiratory health effects.

101+ Reasons to Be Concerned About Coal Export

Mine health and safety	Coal mining, including at surface strip mines, is an inherently hazardous activity that produces known rates of illness, injury, and death.
Nitrogen and Sulfur Oxide emissions from Coal Trains	The coal trains will emit Nitrogen and Sulfur Oxides, which create acid rain and have direct health impacts.
Noise	Noise from the coal trains will interfere with sleep. This impairs cognitive development in children, and has other impacts in people of all ages.
Spontaneous Combustion	Powder River basin coal is well known for its tendency to spontaneously combust, causing health and safety as well as environmental problems.
Toxic metals in soil due to coal dust	The toxic metals in coal, such as arsenic, can accumulate in soils near the coal trains, resulting in exposure to people and to the environment.

Economic

Topic	Definition
Blocked Crossings	Frequently blocked crossings may reduce the ability of businesses to attract traffic and to deliver goods to their destinations
Blocked Waterfront Development	A large volume of coal trains going through downtown Bellingham will cut off the waterfront from the rest of town, impairing planned development.
Boat Collision Hazard	An increased volume of large ships in the Puget Sound will increase the chances of collisions between large ships or between large ships and small boats.

101+ Reasons to Be Concerned About Coal Export

<p>Capital lock-in for big carbon infrastructure</p>	<p>Once a large capital investment is made in a facility, this tends to cause continued use of that facility under circumstances when operating it would not otherwise make sense. The terminal will likely lead to the construction of additional coal burners in Asia, and those coal burners will then operate for 50+ years, with serious environmental and climate effects.</p>
<p>Coal Resource Depletion</p>	<p>Even though we need to reduce our use of coal in the short term, it is still an important resource that we will need for centuries. On some future day we will be pretty bummed that we sent it all to China.</p>
<p>Cost of rail crossing improvements</p>	<p>Local communities are generally required to pay for at least 90% of the costs of rail crossing improvements that are needed to deal with the increased train traffic.</p>
<p>Damage to fishing</p>	<p>The full set of marine impacts will lead to even further reduced capacity for fishing.</p>
<p>Damage to train tracks</p>	<p>Coal trains damage the tracks, increasing maintenance costs and impairing rail safety</p>
<p>Division of communities</p>	<p>A large increase in coal trains will have the effect of splitting communities at the rail line, to a greater extent than any current effects, by impeding free flow of people and traffic for personal and business reasons.</p>
<p>Further Growth of Gigantic Businesses rather than human-scale activity</p>	<p>The proposed project is an expansion by some of the largest companies in the world. It would be better to start activities that help small and local business to grow and create a healthy economy</p>
<p>Giving Away Competitive Advantage</p>	<p>The purpose of the coal in China is to further increase their manufacturing capacity, at a time when so much of American industry has been outsourced.</p>
<p>Giving away US-owned resources for a pittance</p>	<p>The coal is owned by the US Government, but is provided to the coal companies for less than \$1 a ton, a fraction of its actual value.</p>

101+ Reasons to Be Concerned About Coal Export

Illusion of Growth	Certain activity can show up in the GDP and even in paychecks for a little while, creating an illusion of prosperity but not contributing to healthy economic security. Any economic evaluation must evaluate the underlying true value of the activity rather than just the amount of activity.
Impacts on Current Businesses	Existing businesses will be impacted by various types of pollution or other problems.
Impaired Development of High Speed Rail	If the existing lines receive a large increase in rail traffic, then it will not be possible to deploy high speed rail
Increased commute times	Coal trains will cause backups at crossings, increasing commute times and make surface travel schedules less reliable.
Issues related to population of transient construction workers	When a large construction population arrives from out of town, this is often accompanied by an increase in various social issues, and much of the "new business" is directed to sectors of the economy that are not really the ones you want in your community.
Job Decay	A facility that does a fixed operation will typically shed jobs at 2-3% per year, meaning that one third of all jobs would be gone within 16 years. This is in contrast with businesses that have potential to grow and add jobs as an integrated part of the community.
Landslides and Subsidence	Vibration from the extremely heavy coal trains has the potential to trigger landslides or land subsidence, especially when the ground is saturated.
Loss of Export Capability for More Valuable Products	Once this port site is dedicated to coal, it will become unusable for other, more valuable, exportable materials such as Washington-grown food.
Loss of Ranch Land	An increased quantity of land that was previously used for ranching will be destroyed by the strip mines.

101+ Reasons to Be Concerned About Coal Export

Loss of Rural Character	Some areas will no longer be suitable for current or future potential uses that are based on land having a rural character. This may include farming or tourism.
Loss of use of parks	Parks that are near the tracks, such as Boulevard Park in Bellingham, will be substantially less usable with a greater increased occurrence of the coal trains, principally due to the crushing noise from the trains.
Lost Tourism	Visitors spend hundreds of millions of dollars visiting the Puget Sound area, and some of this will be impacted by the coal port.
Misallocation of federal funds	\$800 million in federal High-Speed Intercity Passenger Rail funds are being spent on rail lines which, if they are used for coal trains, will never be able to be used for high speed rail.
Misuse of capital	A large capital investment for a big carbon project is necessarily an investment that does not occur for something else, such as clean energy development.
Non-reimbursed government expenses	Governments at all levels will incur significant expenses related to permitting and administering the project, that are not covered by the applicant. For instance, Whatcom County has spent thousands of dollars so far on activity even before permitting officially began.
Oil Imports	The oil that is needed to fuel the trains will be mostly imported. Some of our imported oil comes from friends like Saudi Arabia.
Permanent destruction of prime land	The continued viability of coal export is subject to market changes, and there is good reason to believe that the export market will dry up in 5-10 years. At that time, the ground of the terminal will be permanently impaired for any other potential use.
Pollution to farm lands	Coal dust from coal trains will be deposited in adjacent farm land, impairing or destroying the ability of that land to be used to create healthy produce for people or animals to eat.

101+ Reasons to Be Concerned About Coal Export

Pollution impacts on farm animals	Livestock near the mines, tracks, and terminal operations will ingest pollutants. These pollutants don't go away – guess who ingests them next?
Poor use of prime land	Bulk export facilities create one of the lowest densities of jobs per acre of any economic activity. Pretty much any other proposed activity, covering the same acreage, would create more jobs, often as many as 10 times more jobs per acre. Once a coal terminal is built, of course, the other uses can't occur.
Rail line congestion	A vast increase in coal train traffic will interfere with existing train traffic including important passenger lines. On a single track, passenger trains are typically required to pull into a siding to allow a coal train to go by.
Real Estate Values	Properties near the tracks will decrease in value due to the coal trains
Recreational Boating	A large increase in coal ship traffic will impact recreational boating in the Puget Sound by making it less safe and less enjoyable.
Reduction of in-migration	Many people move to Whatcom County because it is an attractive place to live. This could be reduced or even reversed.
Road Congestion	When coal trains fully use all of the available rail lines, impairing the use of the same lines for growth in passenger service, more traffic will be diverted onto roads such as I-5. There will also be increased road congestion during the construction period.
Shipping Lane Congestion	The narrow and complex shipping lanes between Cherry Point and the open ocean already have substantial traffic. Introducing more than 400 new very large ships per year will make existing problems with shipping lane congestion substantially worse.

101+ Reasons to Be Concerned About Coal Export

Socialized costs, privatized gains	The project will require or result in many tens of millions of dollars in public costs such as railroad infrastructure, but a majority of the total project revenue will accrue to multi-national companies and won't even make it back to the United States. Government money should be prioritized on projects where the gains go to the United States.
Stigma	Nobody wants to live or work in, or visit, a coal town, for good reason. The coal terminal and related traffic will damage the reputations of affected communities.
Structural damage to infrastructure	Vibration from the coal trains will damage nearby buildings and other infrastructure such as roads and sewers, causing accumulated damage and potentially failure.
View Impairment	Businesses and homes will lose valued views especially out toward the water, for a substantial percent of the time.

101+ Reasons to Be Concerned About Coal Export

Environmental

Topic	Definition
Air Pollutants from ships in inland waters	Coal ships emit large quantities of pollutants from burning bunker fuel, one of the dirtiest fuels anywhere.
Air Pollutants from ships, globally	Emissions from the coal ships as they cross the Pacific Ocean will contribute to regional and global quantities of greenhouse gases, toxic air pollutants, acid rain pollutants, and particulate matter.
Coal dust in inland waterways	Some of the coal dust that leaves the coal trains will enter the surface stream system, degrading water quality.
Coal dust in marine environment	Coal dust will blow from coal piles and loading operations into the marine environment, with substantial environmental consequences.
Coal train impacts in China	All of the effects we see from coal trains in the United States will also occur in China. In many cases the effects will be worse because of China's higher population density.
Diversion from Clean Energy Alternatives	Both the United States and China have ambitious goals for the development of clean energy, but these goals will not be met if capital is instead spent on further expanding big carbon infrastructure.
Eel grass	The Eel grass beds near Cherry Point, which are huge sources of habitat for much marine life, will be hammered by terminal operations including clearing, shade, coal dust, disturbance from ships, and other pollutants.

101+ Reasons to Be Concerned About Coal Export

Encourage continued use of coal in China	Cheap coal imports from the United States will encourage continued use of coal in China, increasing pollution and climate change problems.
Endangered Species near the coal mines	Endangered Species including the Sage Grouse will be at increased risk due to the land destroyed by the strip mines.
Gateway for more degradation	Once an area has some level of impacts, it becomes more acceptable to permit other polluting activities because the area is no longer pristine.
Greenhouse Gas emissions from coal burners	When the coal is combusted in China, it will cause emissions of greenhouse gases especially Carbon Dioxide, contributing to global warming and ocean acidification
Greenhouse Gas emissions from mining and transport of the coal	The trains, mining equipment, terminal equipment, and ships all emit greenhouse gases, most notably Carbon Dioxide, which contribute to global warming and ocean acidification.
Groundwater contamination in and near mines	The strip mines generally reach groundwater. Once this water is contacted by the mine, it can never again be used for a life-giving purpose.
Groundwater contamination at the terminal	Water spray is used to try to mitigate coal dust and for fire suppression. The resulting runoff is supposed to be captured and "managed" but the process is never perfect. Groundwater under and near the terminal site will be contaminated over time and will become unusable for any life-giving purpose.
Hazardous oxide pollutants from coal burners	The coal burners will emit nitrogen and sulfur oxides, which cause acid rain and have other health effects. These emissions will create severe health effects or death for thousands of people in China.

101+ Reasons to Be Concerned About Coal Export

Herring	Herring that live near Cherry point could be driven to extinction by terminal operations. They are not technically an endangered species but probably should qualify.
Increased shade on marine environment	The new terminal will cast certain areas into permanent shadow, killing the existing marine plants and animals.
Invasive species	Invasive marine animals from Asian waters will come to the Puget Sound in the ballast water or on the outside hulls of the coal ships. These invasive species create havoc in existing ecosystems and can result in extinctions.
Irresponsibility - Climate Change	When coal is exported to China and then is combusted to result in Greenhouse Gas emissions, this also leads to increased emissions in the United States because polluters can point to a convenient scapegoat and use this as a basis for not reducing emissions here at home.
Marine Coal Dust from coal piles	Dust flying off the coal piles or list during loading will land in the marine environment, with a variety of serious impacts to marine plants and animals.
Marine Impacts from Coal Unloading	The same issues, such as the destruction of the marine environment, that we see with coal loading will also play out at the ports where coal is unloaded.
Marine Noise	Large volumes of noise from coal ships will confuse and otherwise impact sea life, especially marine mammals.
Mercury from Coal Burners returning to North America	Mercury pollution from the coal burners in China will travel across the Pacific Ocean to the United States, increasing mercury levels here.
Ocean Acidification	Carbon Dioxide emissions from various sources (coal burners, coal transport), will add to acidification of oceans, which destroys sea life and causes economic harm as well.

101+ Reasons to Be Concerned About Coal Export

Oil Spills	The increased traffic in the Salish Sea will increase the risk of a serious oil spill. When this occurs, there will be severe environmental and economic damage.
Orcas	The southern resident Orcas, which are endangered, could be driven to extinction by any one or more of an oil spill, impacts on their food supply, or other marine impacts.
Pollution from Coal Burners returning to US, causing ground level ozone	Pollution from the coal burners in China will travel across the Pacific Ocean to the United States, making ground level ozone pollution worse and adding to the number of days when health standards are exceeded.
Salmon	Chinook salmon will be impacted by a number of factors including harm to the herring that they eat. The herring that spawn at Cherry Point have a different annual life cycle than other herring, so they are available to eat when other herring are not.
Ship Interference with marine mammals	A large number of very large ships will make it more difficult for animals such as Orcas to hunt and otherwise move around in their range.
Terminal impacts in China	For all of the concerns listed for terminal operations at Cherry Point, a similar set of problems will occur at the terminal(s) in China.
Water Pollutants from ships	Ships in international waters are not effectively regulated, and these ships discharge pollutant directly to the ocean waters that they travel through.
Water Pollution in China	Coal handling and coal (ash) waste causes huge water pollution problems, which will occur in China at the sites of the coal burners.
Wetlands	The project includes the destruction of significant wetlands. These wetlands are critical habitats and sources of biodiversity.

101+ Reasons to Be Concerned About Coal Export

Legal, Process, and Rights

Topic	Definition
Accumulation with other terminals	Other coal terminals are being proposed. Any assessment of impacts should consider the accumulative effects of all of the terminals.
Applicants attempts to bypass reviews that are required by federal law	The applicant attempted to repurpose an ancient and smaller existing non-coal permit for the enormous proposed coal terminal. This attempt to bypass federal law does not inspire confidence that the applicant will comply in good faith with all applicable laws.
Assumption that a polluting project is allowed unless explicitly prohibited	Current permitting processes often follow a script where a new activity will be permitted unless serious egregious problems can be proven. A better process would be for the applicant to demonstrate that the project creates net benefit for the community.
Clean Water Act violations by applicants	The applicants violated the Clean Water Act by engaging in illegal clearing of federally protected wetlands. Under the law, this should result in a minimum of a 6 year development moratorium.
Conflict of Interest	Some of the people involved directly or indirectly in the permitting process have interests in the corporations that will profit from the terminal.
Damage to Native American cultural resources	The site of the proposed terminal has a substantial likelihood of containing currently unknown native American cultural sites including burials.
Deception about "multi-commodity terminal"	The entire purpose of the proposed terminal, as has been applied for, is to export coal. The "multi-purpose" terminology is a deliberate attempt to obscure this fact.

101+ Reasons to Be Concerned About Coal Export

<p>Efforts to reduce information available to decision makers</p>	<p>Under threat of lawsuit, Whatcom County Council members have been advised to avoid reading or hearing any information about the proposed project. So, the people who will ultimately vote on permitting the project are required to be the least informed about it.</p>
<p>Historical non-compliance and accident rates</p>	<p>The actual performance of big carbon industry is never as good as what appears in a permit application. While evaluating each potential impact, the permitting agencies should apply historical rates of accidents and non-compliance both industry-wide and specific to the applicants, in order to get a complete picture of likely impacts.</p>
<p>Length of public comment window</p>	<p>The expected window of only 60 days for EIS scoping public comments is inadequate considering the substantial public interest. The ESI Scoping public comment period should be lengthened to a minimum of 120 days.</p>
<p>Limited Opportunities for Public Participation</p>	<p>The EIS / permit process only allows for 2 public comment windows, one very near the beginning of the process and one near (but not at) the end. The process should add, at a minimum: (1) Opportunities for the public to introduce new evidence while the EIS is in process; and (2) The ability to comment on the "Final" EIS that was produced in response to public comments on the draft EIS.</p>
<p>Loss of Community Rights</p>	<p>The current process does not give local communities any say, other than "commenting", on whether they accept very serious local impacts. This gives multi-national corporations, which reflect substantial foreign ownership, more say in these communities than the residents themselves.</p>
<p>Loss of Property Rights</p>	<p>Property may be seized by eminent domain for railroad or terminal development. This is particularly likely if an additional rail route through eastern Whatcom County is developed.</p>
<p>Misleading and false statements by applicants</p>	<p>The applicant has provided numerous misleading statements, such as the falsehood that the terminal will not notably increase train traffic compared to some imaginary alternate case of (impossibly expanded) exports through Canada.</p>

101+ Reasons to Be Concerned About Coal Export

<p>Limited opportunity to provide spoken comments</p>	<p>The permitting agencies should make provision to allow all interested parties to provide their comments in person, at all affected communities. No person should be denied the opportunity to comment in person simply because "time is up" at an insufficient number of public meetings.</p>
<p>Local elected officials are barred from representing the interests of their constituents</p>	<p>Under current interpretations of permitting law, local bodies like county councils are barred from considering the broad interests of the community in deciding whether to grant the permits. They are only allowed to consider the few questions that the law allows. These are biased in such a way as to favor the granting of permits – even when to do so would cause harm to the community concerned or to local ecosystems or to both.</p>
<p>Rounding people out of existence</p>	<p>Sometimes a project of this type is allowed to go forward even with demonstrated health effects because the number of people adversely affected is not "significant." This should not be allowed if adverse health effects are likely to occur to any population.</p>
<p>The Rights of Nature are Ignored</p>	<p>Natural ecosystems have a right to thrive which we have up to now ignored. In the legal system, nature is viewed simply as property: something that the "owner" has a right to destroy at will (look at what happens where coal mining is going on). This is a core ingredient in the recipe for ecological collapse that we have been putting together for the last 200 years. The only remedy is to recognize that nature has rights, too.</p>
<p>The world has a right to a sustainable energy future</p>	<p>Our current energy system is creating a risk of world ecological collapse. Its main sources (coal, oil, natural gas) are finite. The urgent policy need is to adopt a level of energy usage, and source of energy, that will not destroy the planet and which will be reliably available over time.</p>
<p>The world has a right to a natural climate</p>	<p>Projects like this one fly in the face of this right.</p>
<p>Violating Native American rights to resources</p>	<p>The project will involve impacts on Native Americans such as loss of fishing, in some cases violating explicit treaty rights that have been agreed by the United States government.</p>

What do heavy railroad cars have to do with earthquakes?

by GLENN FARLEY / KING 5 News

Posted on April 18, 2012 at 5:59 PM

SEATTLE - When a train goes by you see it, you hear it, you also feel it shake the ground. It doesn't end there. The sheer weight of millions of pounds travels deep down into the ground.

UW Seismologist Paul Bodin watches the impact of the trains on his computer.

Buried alongside the tracks are instruments that measure shaking and water pressure. And he can see that water pressure change even 150 feet underground as the train rolls overhead

"It's telling us something about the movement of water," said Bodin.

You've seen this phenomenon yourself at the beach. Part of the beach is dry and part of it is wet. The wet sand is "soil" saturated with water.

When you step, your weight pushes water out from between the sand grains. When you pull your foot away, the water comes back.

Steve Kramer is a UW Geo Technical engineer, an expert on how the ground supports things like buildings.

A simple experiment shows how an earthquake causes the ground to lose its strength and the building falls over. The ground liquefies.

As big as they are, the trains are tiny when compared to the power of a quake. The instruments will help engineers understand this "liquefaction" process better.

"This has the potential to be a very valuable bit of information," said Kramer.

And as the trains roll, and small earthquakes vibrate through the soil and past the sensors, it's hoped we will know just how much shaking the soil under this part of town can take.

The instruments are part of a permanent installation, and more instruments at the surface will be added later.

